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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/076,778	02/13/2002	Ajay Mohindra	YO998-210X	4104

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02/17/2005

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EXAMINER

NEURAUTER, GEORGE C

ART UNIT	PAPER NUMBER
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2143

DATE MAILED: 02/17/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/076,778	MOHINDRA ET AL.	
	Examiner	Art Unit	
	George C. Neurauter, Jr.	2143	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 9 November 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 11-22 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 11-22 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

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DETAILED ACTION

Claims 11-22 are currently pending and have been examined.

Response to Arguments

Applicant's arguments, see page 8, filed 9 November 2004, with respect to the rejection(s) of claim(s) 11-22 under Peckover have been fully considered and are persuasive.

Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of Chess et al and the cited prior art.

The Examiner notes that the claims employ broad language including the use of words and phrases such as "bag buffer", "variable/value pairs", and "input values" which have broad meanings in the art. In addition, Applicant has not argued any narrower interpretation of the claim language, nor amended the claims significantly enough to construe a narrower meaning to the limitations. As the claims breadth allows multiple interpretations and meanings, which are broader than Applicant's disclosure, the Examiner is forced to interpret the claim limitations as broadly and as reasonably possible, in determining patentability of the disclosed invention. Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir.

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1993). Failure for Applicant to significantly narrow definition or scope of the claims and supply arguments commensurate in scope with the claims implies the Applicant intends broad interpretation be given to the claims. The Examiner has interpreted the claims with scope in parallel to the Applicant in the response and reiterates the need for the Applicant to more clearly and distinctly define the claimed invention. The Applicant is also requested to consider the cited prior art in this Office Action.

Claim Interpretation

The element "bag buffer" defined on page 8, lines 20-23 of the specification and recited in claims 11-17 and 19-22 will be given its broadest reasonable interpretation and will be interpreted by the Examiner as a buffer that holds predetermined variable/value pairs that is consistent with the disclosures of the specification and the interpretation that those skilled in the art would reach. See MPEP § 2111.

The Applicant has not provided a clear definition for the terms "variable" or "value" recited in claims 11-22 within the specification. Therefore, the Examiner will interpret this element by its plain meaning as if the term was interpreted by one of ordinary skill in the art. See MPEP § 2111.01.

Claim Objections

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Claims 20-22 are objected to because of the following informalities:

Claim 18 recites "...a computer program data structure comprising;" The ";" should be a ":".

Claims 20-22 recite "bag buffer". There is insufficient antecedent basis for this limitation. In order to expedite prosecution, the Examiner will assume claims 20-22 depend from claim 19, which would give the claims proper antecedent basis.

Appropriate correction is required.

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 14-17 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

Claims 14-17 recite "...wherein said notifying comprises assembling and transmitting a...message...[to] said user." This

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subject matter is not described within the specification to enable one skilled in the art to make or use the invention.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 11-13 and 18-19 are rejected under 35 U.S.C. 102(b) as being anticipated by "Iterant Agents for Mobile Computing" by Chess et al.

Regarding claim 11, Chess discloses a method for enabling a user to provide input values to a running program (referred to throughout the reference as "iterant agent" or "Transaction Agent") before the program needs the input values, comprising the steps of maintaining a bag buffer of variable/value pairs for use in executing the program in the program (page 34, right column, specifically "The agent is initialized with the user's task..."; page 39, paragraph "Goals and Status Information"; see also Figure 2); receiving a communication, including input values, from the user (page 36, right column, specifically "He uses a form or a dialogue to state his need"); and temporarily

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storing said input values in said bag buffer (page 34, right column, specifically "The agent is initialized with the user's task..."; page 36, right column, specifically "This task specification is used to create an instance of a Transaction Agent...The Transaction Agent is also given the user's preferences for travel reservations (expressed as rules)...").

Regarding claim 12, Chess discloses the method of claim 11 wherein said program subsequently performs a retrieving step wherein said program searches through contents of the bag buffer to locate needed input values before requesting input from said user. (page 37, left column, specifically "The agent...process[es] each of [the] candidates against the user's travel preferences...")

Regarding claim 13, Chess discloses the method of claim 12, wherein the retrieving step comprises the steps of searching, in the bag buffer, for input values associated with input variables requested by said program (page 37, left column, specifically "The agent...process[es] each of [the] candidates against the user's travel preferences...");

updating, if found, the input variables with the input values (page 37, right column, specifically "After ordering the candidates according to preference...");

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disposing, in an input buffer, the input variables, if not found (page 37, right column, specifically "Whenever it finds a better candidate, it sends a message back to the server, where it found the previous selection, releasing the hold it had requested. When it has examined a minimum number of candidates...it returns to the server the best candidate..."); and

optionally notifying the user via electronic means if no suitable values are found in the bag buffer (page 47, left column, specifically the text "Because the client may not be connected when the agent's response is ready...the agent can make use of the Agent Status Services to indicate its status and await an indication from its client. Or it can alert the user by using the services of the predetermined AMP to send a "page" to the client").

Regarding claim 18, Chess discloses a computer program data structure ("iterant agent" or "Transaction Agent"; Figure 2) comprising;

an output buffer for storing output values to be displayed to a user; (page 36, left column, the paragraph "An Information Dispersal/Retrieval Model, specifically "A client sends its agent...into the network to retrieve the latest version of a technical paper on "Agent Technologies"...In this case, the

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iterant agent serves as the courier...for data and program content")

an input buffer for storing values for which user input of variables is required (page 34, right column, specifically "The agent is initialized with the user's task..."; page 36, right column, specifically "He uses a form or a dialogue to state his need...This task specification is used to create an instance of a Transaction Agent...The Transaction Agent is also given the user's preferences for travel reservations (expressed as rules)..."); and

a program state buffer for storing at least the present state of said program. (page 35, left column, specifically "When the agent has successfully completed its task at this server, it may collect its state...")

Regarding claim 19, Chess discloses the data structure of Claim 18 further comprising a bag buffer for storing input variables. (page 34, right column, specifically "The agent is initialized with the user's task..."; page 39, paragraph "Goals and Status Information")

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

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(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

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Claims 14-17 and 20-22 rejected under 35 U.S.C. 103(a) as being unpatentable over Chess et al.

Regarding claims 14-17, Chess discloses the method of Claim 13.

Chess does not expressly disclose wherein the electronic means is a pager, beeper, electronic mail, or smart telephone, wherein the notifying comprises assembling and transmitting a message to said user.

It would have been obvious to one skilled in the art at the time the invention was made to assemble and transmit a message to an electronic means such as a pager, beeper, electronic mail, or smart telephone because the Applicant has not disclosed that using the limitations undisclosed in Chess provide any sort of an advantage, is used for a particular purpose, or solves a stated problem. One of ordinary skill in the art, furthermore, would have expected Applicant's invention to perform equally well with electronic means described in Chess as recited in the claim because the user is able to notified equally well with the method disclosed in Chess regardless of the type of means used to notify the user.

Regarding claims 20-22, Chess discloses the data structure of Claim 19.

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Chess does not expressly disclose wherein the bag buffer is a array data structure, hash table data structure, or a tuple space data structure.

It would have been obvious to one skilled in the art at the time the invention was made to use an array, hash table, or tuple space data structure because the Applicant has not disclosed that using the limitations undisclosed in Chess provide any sort of an advantage, is used for a particular purpose, or solves a stated problem. One of ordinary skill in the art, furthermore, would have expected Applicant's invention to perform equally well with the computer program data structure described in Chess as recited in the claim because the manner in which the data is stored in the bag buffer disclosed in Chess would be stored in the computer program data structure equally well regardless of the type of bag buffer used.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

The following prior art also teaches a computer program data structure ("agent") similar to the claimed invention:

US Patent 5 603 031 to White et al, specifically column 7, line 25-column 8, line 26;

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US Patent 6 016 393 to White et al, specifically column 7, line 25-column 8, line 26.

The following prior art broadly discloses computer program data structures in a plurality of embodiments:

Varma, S. et al. "Non-intrusive Lightweight Agents for Information Management", Department of Computing and Information Science, Queens University, Kingston, Ontario, Canada, 5 November 1997, 50 pages;

Chess, David et al. "Mobile Agents: Are They a Good Idea?", IBM Research Division, T.J. Watson Research Center, released October 1995, 24 pages;

Mobus, George et al. "Foraging for Information resources in Cyberspace: Intelligent Foraging Agent in a Distributed Network", Proceedings of the 1994 conference of the Centre for Advanced Studies on Collaborative Research, October 1994, 14 pages;

US Patent 6 286 002 to Axaopoulos et al;

US Patent 6 134 580 to Tahara et al.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to George C. Neurauter, Jr. whose telephone number is (571) 272-3918. The examiner can normally be reached on Monday through Friday from 9AM to 5:30PM Eastern.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Wiley can be reached on (571) 272-3923. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

gcn


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